



# Complete solutions for pipeline assessment, remediation and long-term management.



## Assess & Address

Utilities face significant challenges managing their aging infrastructure. Pipeline failures are increasing in frequency and severity, leaving utilities with difficult decisions on whether to maintain or replace their assets. The U.S. EPA and ASCE estimate the funding gap associated with buried infrastructure ranges from more than \$200 billion to \$1 trillion over the next 25 years. Pure Technologies is helping utilities manage their buried infrastructure through its Assess and Address™ pipeline management approach.

## Unparalleled Experience in Pressure Pipe Inspection

- Pure Technologies has provided condition assessment solutions for more than 8,000 miles of pressure pipeline.
- Pure Technologies works with utilities of all sizes; from a small town to a major metropolis, proactive pipeline management is available.
- Pure Technologies is the leading large-diameter pressure pipeline management firm.

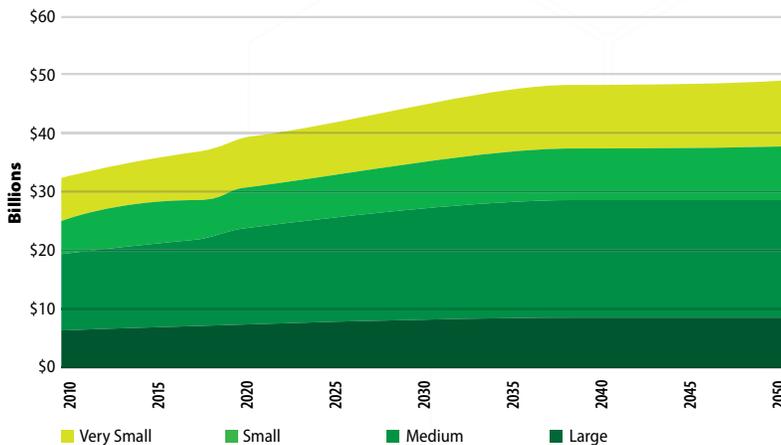
## The Smart Business Approach: Assess & Address

Conventional pipeline management allowed a pipeline to fail multiple times before replacing it. While this “three strikes and you’re out” approach may work well for small-diameter distribution pipelines, it isn’t a cost-effective solution for large-diameter pipelines.

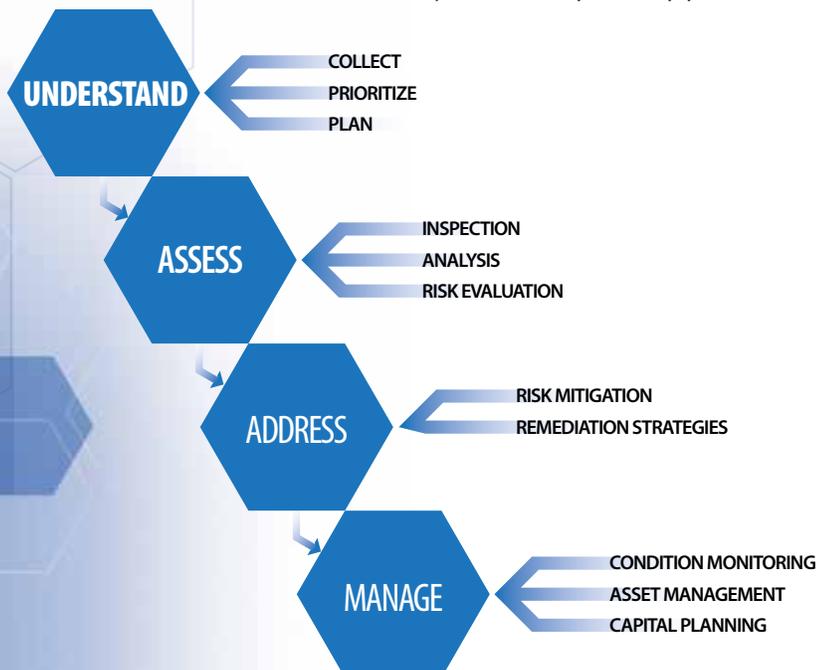
A capital replacement program for large-diameter pressure pipelines not only carries a high price, but also poses significant logistical challenges. Through the assessment of more than 8,000 miles of large-diameter pipelines, it is clear that even problematic transmission mains can be managed. In fact, Pure Technologies has found that 96% of pipe sections do not have any deterioration at all and are in “like new” condition, while less than 1% of pipe sections require immediate repair.

There is a better way to maintain pressure pipelines

## Total Water Main Investment Needs for Asset Replacement and Growth by System Size



Source: AWWA 2012 - Buried No Longer: Confronting America's Water Infrastructure Challenge Report



than replacement or sliplining; assess the pipeline and address the problems. Pure Technologies has conducted return on investment studies and found that while many variables impact pricing, on average, an Assess & Address program can be implemented for roughly 4% of the capital replacement cost.



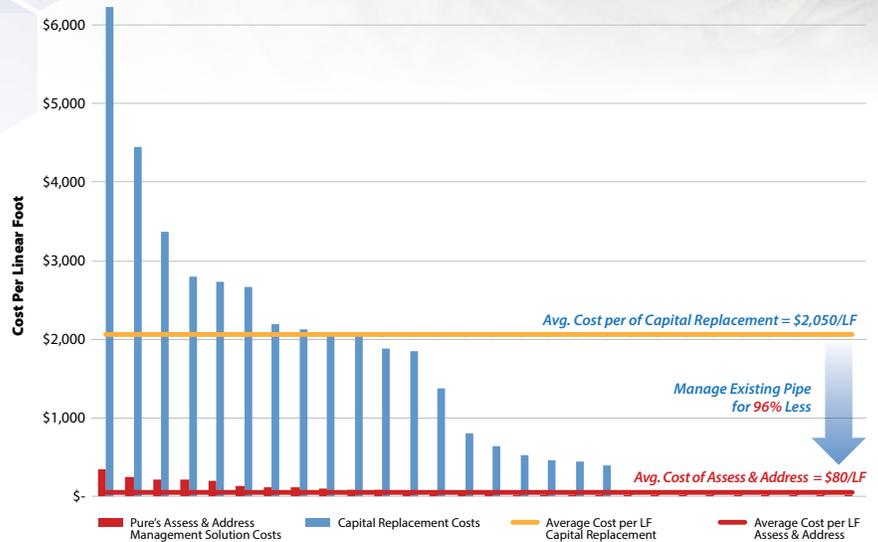
*This approach has saved our clients hundreds of millions of dollars in capital replacement costs.*

### The Impact of Pipe Failure

AWWA has studied the fiscal impact of large-diameter pipeline failures and found that the average cost ranges from \$500,000 to \$1.5 million per failure. This does not include the cost of potential legal action or the damage done to public confidence in the utility.

Pipeline management identifies problematic pipe sections to allow for proactive repair, thereby avoiding major failures. The savings from preventing a single pipeline failure can often pay for an Assess & Address program and can restore public confidence in the utility.

**Capital Replacement versus Assess and Address™ for Large Diameter Water Mains (>36-inch diameter)**



### INSPECTION PLATFORMS

	PIPEDIVER®	SMARTBALL®	SAHARA®	PUREROBOTICS	MANNED	PIG
PCCP Electromagnetic Inspection	✓			✓	✓	
Metallic Pipe Electromagnetic Inspection	✓			✓	✓	
Acoustic leak Detection		✓	✓			
Visual/Video Inspection			✓	✓	✓	
Acoustic Wall Assessment		*	*			
Pipeline Mapping		*	✓	✓	✓	
MFL					✓	✓

\* In Development

*While there are dozens of destructive and non-destructive pipeline inspection technologies available today, no firm has more experience utilizing these techniques than Pure Technologies. Our condition assessment engineers continuously evaluate industry developments and provide our clients with the best solution available.*



### ***Miami-Dade Water and Sewer Department (WASD)***

Following failures of 54-inch and 72-inch Prestressed Concrete Cylinder Pipes (PCCP), WASD implemented Pure Technologies' Assess & Address program to locate pipes near failure in their water and wastewater systems. Since 2010, WASD and Pure Technologies have assessed over 100 miles of water transmission and wastewater force mains. They have found that only 0.7% of the pipes inspected require repair, while over 99% can be safely managed.

### ***Washington Suburban Sanitary Commission (WSSC)***

Pure Technologies has partnered with WSSC in a multi-year program to manage approximately 145 miles of PCCP water transmission mains that are 36-inches and larger. These transmission mains are the backbone of WSSC's potable water delivery network that serves nearly 2 million customers outside of Washington, DC. By adopting the Assess & Address model, WSSC has been able to evaluate and actively monitor the condition of its PCCP inventory instead of completing an expensive capital replacement project. To date, over 70 miles of PCCP is being effectively and safely managed for approximately 6% of the capital replacement cost, saving WSSC nearly \$2 billion.



#### **Head Office:**

#### **Calgary, Alberta, Canada**

3rd Floor, 705 - 11 Avenue SW  
Calgary, Alberta T2R 0E3  
+1-403-266-6794

#### **Regional Offices:**

#### **Maryland, USA**

+1-443-766-7873

#### **Ontario, Canada**

+1-905-624-1040

#### **Mexico**

+52-55-56-61-4099

#### **Sydney, Australia**

+61-2-9550-1777

#### **Hong Kong**

+852-2345-5527

#### **Abu Dhabi, UAE**

+971-2-674-4276